



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,738	12/06/2004	Hitoshi Iochi	L9289.04189	6980

24257 7590 01/04/2007
STEVENS DAVIS MILLER & MOSHER, LLP
1615 L STREET, NW
SUITE 850
WASHINGTON, DC 20036

EXAMINER

NGUYEN, TUAN HOANG

ART UNIT	PAPER NUMBER
----------	--------------

2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/516,738

Applicant(s)

IOCHI, HITOSHI

Examiner

Tuan H. Nguyen

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 03/03/2005 has been considered by Examiner and made of record in the application file.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. (US PAT. 7,095,780 hereinafter, "Nakamura") in view of Aizawa et al. (U.S. PUB. 2002/0114404 hereinafter, "Aizawa").

Consider claim 1, Nakamura teaches a base station apparatus comprising: a transmission power controller that controls a transmission power of a packet (table 2 col. 9 line 59 through col. 10 line 21); a receiver that receives a channel condition report value transmitted from a communication terminal apparatus of a transmission destination of the packet, said downlink channel condition value indicating a downlink channel condition (col. 52 line 64 through col. 53 line 29); and a receiving quality estimator that estimates a receiving quality of the packet at the communication terminal apparatus based on the channel condition report value (col. 32 lines 8-15).

Nakamura does not explicitly show that the receiving quality estimator calculates a request packet quality for achieving a target packet quality upon a retransmission based on an estimated receiving quality of the packet; and wherein the transmission power controller sets the transmission power upon retransmission based on a calculated request packet quality.

In the same field of endeavor, Aizawa teaches the receiving quality estimator calculates a request packet quality for achieving a target packet quality upon a retransmission based on an estimated receiving quality of the packet (page 3 [0030]); and wherein the transmission power controller sets the transmission power upon retransmission based on a calculated request packet quality (page 2 [0021] and [0022]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, the receiving quality estimator calculates a request packet quality for achieving a target packet quality upon a retransmission based on an estimated receiving quality of the packet; and wherein the transmission power controller

sets the transmission power upon retransmission based on a calculated request packet quality, as taught by Aizawa, in order to control transmission power at the time of retransmitting data after transmitting the data.

Consider claim 3, Nakamura further teaches the receiving quality estimator estimates the receiving quality of the packet based on an average value of a plurality of channel condition report values received earlier (col. 67 lines 9-13).

Consider claim 8, Nakamura teaches a transmission power control method comprising: estimating a receiving quality of a packet based on a channel condition report value transmitted from an apparatus of a transmission destination of the packet, said downlink channel condition value indicating a downlink channel condition (col. 52 line 64 through col. 53 line 29).

Nakamura does not explicitly show that calculating a request packet quality for achieving a target packet quality upon retransmission based on an estimated receiving quality of the packet; and setting a transmission power for retransmission of the packet based on the request packet quality.

In the same field of endeavor, Aizawa teaches calculating a request packet quality for achieving a target packet quality upon retransmission based on an estimated receiving quality of the packet (page 3 [0030]); and setting a transmission power for retransmission of the packet based on the request packet quality (page 2 [0021] and [0022]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, calculating a request packet quality for achieving a target packet quality upon retransmission based on an estimated receiving quality of the packet; and setting a transmission power for retransmission of the packet based on the request packet quality, as taught by Aizawa, in order to control transmission power at the time of retransmitting data after transmitting the data.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Aizawa as applied to claim 1 above, and further in view of Kim et al. (U.S. PUB. 2002/0093918 hereinafter, "Kim").

Consider claim 2, Nakamura and Aizawa, in combination, fails to disclose an offset calculator that calculates an offset from a difference in transmission power between a packet transmission channel and a shared control channel, wherein the receiving quality estimator takes into account the offset in calculation of the request packet quality.

However, Kim teaches an offset calculator that calculates an offset from a difference in transmission power between a packet transmission channel and a shared control channel, wherein the receiving quality estimator takes into account the offset in calculation of the request packet quality (page 3 [0044] and [0045]).

Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Kim into view of Nakamura and Aizawa, in

order to provide a packet data transmission method of a mobile station in a mobile communication system supporting packet data transmission.

6. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Aizawa as applied to claim 1 above, and further in view of Moon et al. (U.S. PUB. 2003/0021240 hereinafter, "Moon").

Consider claim 4, Nakamura and Aizawa, in combination, fails to disclose the receiving quality estimator predicts and estimates the receiving quality of the packet from a plurality of channel condition report values received earlier.

However, Moon teaches the receiving quality estimator predicts and estimates the receiving quality of the packet from a plurality of channel condition report values received earlier (page 1 [0007]).

Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Moon into view of Nakamura and Aizawa, in order to provide a data transmission/reception apparatus and method for improving performance of a radio communication system.

Consider claim 5, Moon further teaches a coding priority determiner that, when a method is employed that switches a priority of a systematic bit and a parity bit in a turbo code between times of initial transmission and retransmission, determines which of the systematic bit and the parity bit to be prioritized and transmitted based on the receiving

Art Unit: 2618

quality of the packet estimated by the receiving quality estimator (page 6 [0058]).

Consider claim 6, Moon further teaches the coding priority determiner retransmits the parity bit with priority when the systematic bit is received in a desirable quality (page 4 [0027]).

Consider claim 7, Moon further teaches the coding priority determiner retransmits the systematic bit with priority when the systematic bit is not received at a desirable quality (page 4 [0036]).

Conclusion

7. Any response to this action should be mailed to:

Mail Stop _____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window

Randolph Building

401 Dulany Street
Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571) 272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information Consider the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T.H.
Tuan Nguyen
Examiner
Art Unit 2618

Lana N. Le
12-22-06
LANA LE
PRIMARY EXAMINER